
**DOE Regulatory Unit
Comments on the BNFL Inc.
Integrated Safety Management Plan,
Revision 2**

May 1998

Office of Radiological, Nuclear, and Process
Safety Regulation of TWRS Privatization Contractors

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1.0 Introduction and Purpose

The DOE Regulatory Unit *Evaluation Report of the BNFL, Inc. Integrated Safety Management Plan* (RL/REG-98-03, Revision 0, March, 1998) documents the evaluation of the BNFL ISMP by the Regulatory Unit (RU). This evaluation identified six conditions for the approval of the ISMP, along with a requirement to redefine the classification of SSCs. In addition, detailed questions posed by the RU during the SA Package review led to additional commitments by BNFL to revise the ISMP.

This document summarizes the RU's evaluation of the BNFL Inc. Integrated Safety Management Plan, Revision 2 (BNFL-5193-ISP-01, April 17, 1998). The revised ISMP incorporates changes derived from both the BNFL responses to RU review questions and from the ISMP Evaluation Report.

This document does not elaborate on revisions to the ISMP that were found acceptable, but rather provides an explanation of areas in which the RU found the ISMP Revision 2 to be deficient. The agreements made between the RU and BNFL in a meeting to discuss the RU's findings in relation to ISMP Revision 2 on May 19, 1998 are described also.

2.0 Disposition of Conditions of Approval

The RU's Evaluation Report of the BNFL Integrated Safety Management Plan established six conditions for approval. The following summarize the actions and the RU's assessment of adequacy of the BNFL action.

Action 1- BNFL shall revise the submitted ISMP to incorporate modifications committed to by BNFL in its responses to the RU's questions during review of the SA Package.

RU Assessment - Accepted for questions that resulted in explicit commitments with the exceptions noted in the following sections.

Action 2 - BNFL shall revise Section 3.3 of the ISMP to clearly describe an authorization basis management process that conforms to the RU position described in RL/REG-97-13, *Regulatory Unit Position on Contractor-Initiated Changes to the Authorization Basis*.¹ (Section 3.2.2.3 "Authorization Basis").

RU Assessment - (See RU comments on Section 3.3.2, below).

Action 3 - BNFL shall submit a revised Quality Assurance Plan (QAP) for RU review and approval. (Section 3.1.3, "10 CFR 830.120 Evaluation").

RU Assessment - (See RU comments related to QA, below, including Sections 1.3.11, 3.3.1.5, and 3.3.2).

Action 4 - BNFL shall submit a schedule, including specific dates, for safety-related activities. (Section 3.8, "Scheduling of Safety Related Activities").

¹*Regulatory Unit Position on Contractor-Initiated Changes to the Authorization Basis*, RL/REG-97-13, Revision 3, U.S. Department of Energy, Richland Operations Office, Office of Radiological, Nuclear, and Process Safety Regulation, Richland, Washington, December 1997.

RU Assessment - (See RU comments on Section 9.1, below)

Action 5 - BNFL shall modify the ISMP to provide a description of their plans to implement defense in depth. (Section 3.2.2.1, “Defense-in-Depth”; see also DOE/RL-98-09).

RU Assessment - (See RU comments on Section 3.1.1, below)

Action 6 - BNFL shall revise the ISMP to either (1) indicate that BNFL Inc. accepts ultimate responsibility for safety, or (2) clarify that the General Manager’s ultimate responsibility for safety is equivalent to the Contractor’s responsibility (Section 3.2.2.2, “Safety Responsibility” and Section 3.2.3.1.3, “Process Safety Responsibility”).

RU Assessment - Acceptable

3.0 Detailed Comments Regarding Revision 2 of the ISMP

The evaluation of Revision 2 of the BNFL ISMP by the RU resulted in comments that varied widely in significance. The following subsections discuss BNFL responses to commitments that were found unacceptable. Also, the rationale for unacceptability is explained. The subsections are presented by ISMP-related section.

The RU evaluated most of the commitments identified by BNFL in the Access database entitled “BNFL Commitments Affecting the ISMP,” dated April 27, 1998. The text in each Section, below, refers to the identifier numbers in that database wherever possible and summarizes commitments not adequately met, or where clarification is required.

In most cases, if the reviewers found the specific change to the ISMP Revision 2 satisfactory, no elaboration was provided unless clarification was helpful. Many commitments were adequately incorporated into ISMP Revision 2. The commitments (associated with BNFL identifiers) that were met include²

SAP-13, SAP-43, SAP-83, SAP-84, SAP-85, SAP-92, SAP-94*, SAP-95, SAP-97, SAP-98, SAP-99, SAP-100, SAP-101, SAP-103, SAP-107, SAP-110, SAP-111, SAP-113, SAP-115, SAP-116, SAP-118, SAP-120, SAP-122, SAP-123, SAP-125, SAP-126, SAP-127, SAP-128, SAP-177, SAP-178, SAP-179, SAP-182, SAP-183, SAP-187, SAP-188, SAP-191, SAP-192, SAP-194, SAP-195, SAP-197, SAP-198, SAP-199, SAP-200, SAP-201, SAP-202, SAP-204, SAP-206, SAP-209, SAP-212, SAP-213, SAP-217, SAP-218, ISMP ER-3, ISMP ER-5, ISMP ER-6, ISMP ER-10, ISMP ER-11, ISMP ER-12, ISMP ER-13, ISMP ER-14, ISMP ER-15, ISMP ER-21, ISMP ER-22, ISMP ER-23, ISMP ER-24, ISMP ER-25, ISMP ER-26, ISMP ER-28, ISMP ER-30, ISMP ER-31.

* RU and BNFL have not yet resolved this issue associated with compliance to 10 CFR 835.101 (see section 3.9.1.1).

In evaluating ISMP Revision 2 changes, the reviewers identified that BNFL had made many changes

² Not all commitments in the BNFL Access database were reviewed. This report explicitly discusses those that were found to be either acceptable or not acceptable.

that were not in response to either the RU Evaluation Report, to the Questions generated during the SAP Review or to correct inconsistencies between SA Package documents and the Initial Safety Assessment. (The reviewers identified the majority of these changes, but did not evaluate the change for acceptability.) Examples of these changes include the following:

- Section 1.3.11 (Quality Levels)
- Section 3.3.2 (Revisions to the Authorization Basis)
- Entirely new Sections to the ISMP (e.g., Section 1.3.19 [Deactivation] and Section 2.4 [Environmental Radiation Protection Program]).
- Revised or added definitions to the existing contract definitions, e.g. TSR, USQ, “facility worker”).

These changes raise questions regarding the ability of BNFL to adequately control the configuration of the Authorization Basis.

The RU is requesting that BNFL provide a revised ISMP that reflects only changes resulting from commitments made in their response to SA Package and Initial Safety Assessment review questions, ISMP evaluation report conditions or corrections to inconsistencies within the SA Package or with the Initial Safety Assessment. The RU is also requesting that BNFL provide a complete listing of each change to the ISMP that states the reason for the change and provides a brief explanation of how the change either addresses the comment or implements the commitment.

ISMP SECTION 1 – SAFETY APPROACH TO TWRS PRIVATIZATION

ISMP Section 1.3.9 Quality Assurance Program

Issue

The wording of the second paragraph of Section 1.3.9 was changed in a manner that makes the purpose of audits and surveillances confusing (e.g., “System audits are conducted to identify the SSCs for quality control inspections and evaluation. Surveillances ... are conducted to determine compliance of in-process activities to quality assurance program requirements.” emphasis added) and inconsistent with the purpose of audits and surveillances as stated in the QAPIP.

Action Required

Clarify the wording of the second paragraph of Section 1.3.9 in a manner that is consistent with the purpose of audits and surveillances as stated in Revision 4 of the QAPIP.

Issue Resolution in May 19, 1998 Meeting

BNFL agreed to accommodate the Action Required for this item as stated.

ISMP Section 1.3.10 Classification of Structures, Systems and Components

Issue

Commitments related to ISA-16, 17, 18, 19, and 20 have been partially met. Definition of SSCs important to safety is first made in Section 1.3.10. Specific reference should be made to Table 1-2 as the radiological and exposure standards referenced in the definition. In addition, BNFL should state whether SSCs that are neither Safety Design Class nor Safety Design Significant will be specifically identified (e.g., as not important to safety?)

The steps identified in section 1.3.10, pp. 1-17 and 1-19 for identifying the “Safety Design Significant” SSCs do not appear to be consistent with the definition that is provided for “Safety Design Significant” SSCs. Specifically, the statement that the ways to be used to identify Safety Design Significant SSCs will include “(1) SSCs identified as significant contributors to safety by the risk analyses that confirm the facility accident risk goals are met” appears to be inconsistent with the definition which seems to limit the role of the Safety Design Significant SSCs to public and worker protection during normal operation.

Also, it would appear that SSCs that contribute to the facility compliance with the accident risk goals will likely be the same as those needed to “prevent or mitigate accidents that could exceed public and worker radiological and chemical exposure standards”. It is therefore not clear how BNFL will discriminate between “Safety Design Class” and “Safety Design Significant” SSCs.

The ISMP Evaluation Report states in the conclusion to Section 3.2.2.7.2 (page 38) that “BNFL must redefine the classification of SSCs so that the contractual definition of “important to safety” and the intent of integrated safety management are met.” BNFL made progress toward this requirement in Appendix 1A of the ISA. However, 9 open issues were identified in the ISA Evaluation Report relating to SSCs important to safety. It is therefore noted that this item needs to be improved in the ISMP that is submitted prior to the CAR.

Action Required

- Elaborate to enable distinguishing between Safety Design Class and Safety Significant SSCs.
- Make specific reference to Table 1-2 as the radiological and exposure standards referenced in the definition in this section. In addition, state whether SSCs that are neither Safety Design Class nor Safety Design Significant will be specifically identified (e.g., as not important to safety).

Issue Resolution in May 19, 1998 Meeting

BNFL stated that compliance to accident risk goals would be evaluated using risk assessment techniques that are not as extensive as those used in the nuclear industry for the performance of probabilistic risk assessment. They pointed out that deterministic and probabilistic analysis might not lead to the same conclusions insofar as SSC classification. An evaluation of compliance to accident risk goals requires summation of risks from a wide range of initiating events, including events associated with normal operation. BNFL explained that any single event would be prevented or mitigated by SSCs so that the Top-Level Standards in Table 1-2 were not exceeded. However, if several smaller risks could be combined to generate a risk that would exceed the accident risk goal, Safety Design Class SSCs would be considered to limit the total risk, not to exceed the accident risk goal. It was noted by BNFL that the open issues identified in the ISA in relation to this item were manifestations of implementation problems, but did not alter the validity of the ISMP treatment of the subject. The RU concurred with this observation.

BNFL committed to explain how evaluation of compliance to the accident risk goals will assist in the identification of Safety Design Significant SSCs.

ISMP Section 1.3.11 Quality Levels

Issue

The wording of the sixth paragraph of Section 1.3.11 was revised in a manner that significantly changes the authorization basis with respect to the specific QA requirements defined for each quality level. Specifically, Section 1.3.11 within Revision 0 of the ISMP stated: “Specific quality assurance requirements for each of the three quality levels are defined through a matrix of QL requirements against the quality assurance criteria of 10 CFR 830.120 and the BNFL Quality Assurance Program (BNFL 1997a). This matrix is shown in Table 1-4.” In sharp contrast, the wording of Revision 2 of the ISMP relegates the QA requirements matrix to a typical example: “A typical application of quality assurance requirements for each of the three quality levels is provided through a matrix of QL requirements against the quality assurance criteria of 10 CFR 830.120 and the BNFL Quality Assurance Program (BNFL 1997a). This typical matrix is shown in Table 1-3” (emphasis added). This change in wording is also a significant departure from other recent BNFL submittals including the February 18, 1998 ISAR Appendix 1A, and Revision 4 of the QAPIP.

Actions Required:

Revise the wording of the sixth paragraph of Section 1.3.11 to restore the matrix of QA requirements (Table 1-3) to the level of significance it held previously as part of the authorization basis in prior BNFL submittals to the Regulatory Unit.

Define the role of the TWRS-P Project QA Manager with respect to the extent to which he is responsible for reviewing and approving documents such as the ISMP prior to submittal to the RU.

Issue Resolution in May 19, 1998 Meeting

BNFL agreed to accommodate the Actions Required for this item as stated. BNFL stated that they are now in the process of implementing a formal configuration control system for authorization basis control that is defined in a “Part B Configuration Control” document. BNFL agreed to remove reference to “typical application.”

The RU recommended that a lessons-learned memorandum be generated to capture and correct the overall document control and configuration management related errors encountered in this review. BNFL recommended that as part of the lessons learned memo, the RU and BNFL should agree on a method of interaction that maximizes efficient and unambiguous closure on regulatory actions in the future.

Issue - Identifier SAP-181 – “Should” Versus “Shall” in Table 1-4

In response to RU SA Package Question 143, BNFL committed to revising ISMP Table 1-4 to reflect

the use of the term “shall” instead of “should” to achieve compliance with 10 CFR 830.120.

Action Required

Many of the “shoulds” in ISMP Table 1-3 (identified as Table 1-4 in prior revisions) were changed to “shall.” Six (6) instances where the wording in the “QAP Requirement” column of the table still reflected the use of the term “should” instead of “shall.”

Issue Resolution in May 19, 1998 Meeting

BNFL agreed to accommodate the Action Required for this item as stated. BNFL proposed to delete Table 1-3 from the ISMP and replace it with a pointer to the Table in the QAPIP. The RU proposed instead to leave the Table in the ISMP and adopt a configuration management system that would automatically revise all such information throughout the authorization basis.

Issue

The definitions of Quality Levels in Section 1.3.11 lack adequate clarity and completeness. These definitions are inconsistent with those definitions presented to the RU in the QAPIP.

Action Required

Change the definitions of Quality Levels in Section 1.3.11 to be consistent with those in Revision 4 of the QAPIP.

Issue Resolution in May 19, 1998 Meeting

BNFL agreed to accommodate the Action Required for this item as stated.

Issue - Table 1-3 Footnotes/Legend

The definitions of “X” and “Xa” in the footnotes/legend at the end of Table 1-3 within the ISMP are confusing, misleading, and inconsistent with the comparable footnotes/legend in Revision 4 of the QAPIP.

Action Required

Revise the definitions of “X” and “Xa” in the footnotes/legend at the end of Table 1-3 in a manner that is consistent with the comparable footnotes/legend in Revision 4 of the QAPIP.

Issue Resolution in May 19, 1998 Meeting

BNFL agreed to accommodate the Action Required for this item as stated.

Issue – Consistency of Definitions

While the response to Question #136 applied to the definitions of QL, the BNFL commitment was to assure that definitions consistent, i.e., inconsistencies between definition in authorization basis documents would be corrected.

Action Required

Ensure that definitions are consistent among all authorization basis documents – in this case between the Revised ISMP and the Revised QAPIP.

Issue Resolution in May 19, 1998 Meeting

BNFL agreed to accommodate the Action Required for this item as stated.

ISMP Section 1.3.16 Configuration Management**Issue** (ISMP ER Section 3.2.2.5)

The original commitment ISMP ER-16 required three items to be dispositioned. These were 1) the identity of the organization or positions responsible for performing each of the four basic configuration management steps 2) the qualifications required for personnel performing each step, and 3) the safety-related requirements that would cause proposed changes to be rejected during the evaluation step (SAP Question 176).

For 1), BNFL provided Table 1-4 in Revision 2 titled “Responsibilities for Changes to the TWRS-P Facility and Outlines.” Table 1-4 does attempt to identify what organization is responsible for the identification, evaluation, and implementation of various types of changes. However, this does not delineate the approval, which also varies with conditions. In addition, the ISMP Revision 2 does not display the relationship between the ISMP and the QAPIP on this topic.

For 2), Section 1.3.16 page 36, the ISMP Revision 2 states “The qualification requirements are established in Part B.” For both the purposes of SRD top-level standards as well as this ISMP issue, qualification of personnel for various types of safety-related technical work needs to be defined via a commitment to a top-level standard such as ANSI 3.1. This is not presently in the ISMP Revision 2. Since some of these groups such as engineering, technical support, operations support, safety, and environmental protection must function during the design phase, this level of qualification definition is needed at this time.

For 3), Section 1.3.16 page 36 of the ISMP Revision 2 states “A change that would result in a USQ would not be approved until regulatory approval is granted thus removing the USQ condition.” While correct, the statement does not describe the review program on the part of the contractor via a USQD effort that should be written in some detail in the QAPIP. The reference to the QAPIP should be made in the ISMP Revision 2.

Actions Required

- Identify approval responsibilities related to Table 1-4 and whether these approval officials are the same as those identified in the QAPIP.

- Provide an implementing standard in the revised SRD that defines the qualifications for personnel assigned to various types of work.
- Refer to the QAPIP in the ISMP Revision 2 with regard to the review program envisioned for a USQD review program.

Issue Resolution in May 19, 1998 Meeting

BNFL indicated that the discussion of approval (item 1) is described on the page prior to Table 1-4 (page 1-32). The RU has determined that the information in the QAPIP regarding configuration management for changes to the TWRS-P facility is consistent with the ISMP Revision 2.

BNFL stated that the action to define qualifications of personnel performing work in the areas cited (item 2) would be taken during Part B. BNFL agreed to cite the QAPIP with regard to the USQD process (item 3).

ISMP Section 1.3.19 Deactivation

Issue

This is a new section that has not been reviewed.

Action Required

Submit this section under the “change control” process in the next full revision to the ISMP (i.e. Construction Authorization Request).

Issue Resolution in May 19, 1998 Meeting

BNFL stated that the material was added in direct response to RU Question 157, and that the language added is a verbatim duplicate (page 157-22 of the SAP question data base) of what was approved. The RU stated that while it had approved the wording as a response to the question, that the intention was for the material to be added to the ISMP at the time of the PSAR, so that a detailed review of the section could be conducted at that time.

The RU has evaluated the response to Question 157 in more detail and offers two options to BNFL:

- BNFL may elect to leave the material in the ISMP, and anticipate a full review and evaluation by the RU, including assembly of reviewers, a question/response period and requests for additional information. The material as submitted does not appear to be adequate.
- BNFL may withdraw the material and resubmit it at the CAR, at which time the RU will include the material in its detailed review.

During a discussion held on May 21, 1998, BNFL reiterated and emphasized that the specific question/response/disposition on this item instructs them to add the language in Revision 2. Therefore, the language will be retained in the next revision.

ISMP SECTION 2 – COMPLIANCE WITH LAWS AND REGULATIONS

ISMP Section 2.4 Environmental Radiation Protection

Issue

This is a new section that has not been reviewed.

Action Required

Submit this section under the “change control” process or submit in the next full revision to the ISMP (i.e. Construction Authorization Request).

Issue Resolution in May 19, 1998 Meeting

BNFL stated that the material was added in direct response to RU question 157, and that the language added is a verbatim duplicate (page 157-11 of the SAP question data base) of what was approved. The RU stated that while it had approved the wording as a response to the question, that the intention was for the material to be added to the ISMP at the time of the PSAR, so that a detailed review of the section could be conducted at that time.

The RU has evaluated the response to question 157 in more detail and offers two options to BNFL:

- BNFL may elect to leave the material in the ISMP, and anticipate a full review and evaluation by the RU, including assembly of reviewers, a question/response period and requests for additional information. The material as submitted does not appear to be adequate.
- BNFL may withdraw the material and resubmit it at the CAR, at which time the RU will include the material in its detailed review.

During a discussion held on May 21, 1998, BNFL reiterated and emphasized that the specific question/response/disposition on this item instructs them to add the language in Revision 2. Therefore, the language will be retained in the next revision.

ISMP SECTION 3 – CONFORMANCE TO TOP-LEVEL SAFETY STANDARDS AND PRINCIPLES

ISMP Sections 3.1.1, Approach to Defense in Depth and ISMP Section 3.1.2, Implementation of Defense in Depth

Issue

ISMP Revision 2 modifies Section 3.1.1 “Approach to Defense-in-Depth” and adds Section 3.1.2 “Implementation of Defense-in-Depth” in response to the RU Evaluation Report finding that the method

for implementing defense in depth is not adequately described in the ISMP. ISMP Revision 2 provides an improved discussion of the implementation approach but deficiencies remain. Evaluation report section 3.2.2.1 calls for the ISMP to elaborate on defense in depth implementing criteria. Specifically:

Criteria and methodology for determining the number of multiple layers necessary for protection. The only reference in Revision 2 to this item is in Section 3.1.2 (page 3-5), which states “There is no limit to the number of barriers that may be identified nor is there a requirement to demonstrate a minimum number of layers of defense-in-depth. The protection provided for a given hazard is commensurate with industrial practices for relevant types of activity.” Unfortunately, the RU has no assurance that unspecified “industrial practices” will provide adequate safety for TWRS-P. The number of layers should in some way be tailored to the relative magnitude and likelihood of the hazard. This would be consistent with the BNFL approach described on page 3-3, “The more severe the hazardous situation, the greater the level of protection specified.”

Criteria for determining the design Classification of SSCs used to achieve defense in depth. The criteria for determining design classification of SSCs used to achieve defense in depth are not articulated, other than a statement on page 3-6 describing the functions of SSCs related to defense in depth. Again, the notion of tailoring is relevant and could provide a discriminator to determine which SSCs must be Safety Design Class, Safety Design Significant or neither.

Criteria for establishing acceptable risk associated with defense in depth features. Section 3.1.2 states that “...risk analyses are performed to confirm that the facility accident risk goals...are met.” Section 3.1.2 also states that “risk analyses may show that certain events are significant contributors to the overall accident risk. Additional defense-in-depth items will be specified to reduce that risk. Conversely, if the risk assessment identifies areas of excessive conservatism, unnecessary controls may be removed.” This approach to controlling risk by using defense in depth design features is acceptable. The same approach could be applied in selecting the number of multiple layers for protection.

Subordinate Standards. Implementing standards that describe in more detail implementing plans for the defense in depth principles of prevention, control, mitigation, automatic systems, and human aspects will be reviewed in the revised SRD.

Actions Required

Provide further elaboration in ISMP Revision 2 for:

- Criteria and methodology for determining the number of multiple layers necessary for protection
- Criteria for determining the design Classification of SSCs used to achieve defense in depth.
- Criteria for establishing acceptable risk associated with defense in depth features.

Provide implementing standards in SRD Revision 1 for the defense in depth principles of prevention, control, mitigation, automatic systems and human aspects.

Issue Resolution in May 19, 1998 Meeting

BNFL did not agree to accommodate the Actions Required for this item as stated. BNFL proposes to state that the number of barriers will be tailored to the hazard. Additionally, the details for how the decision will be made will be in the design guides, which are being generated and will not be available until Part B. BNFL felt that being more prescriptive than making a general statement on

tailoring is inappropriate for the ISMP. The RU disagrees with this position. The proposed Revision 1 of the SRD identifies Section 3.1.2 (Implementation of Defense in Depth) as the Administrative Standard related to Safety Criterion 4.1-1 (General Design), related to Defense in Depth. The item remains unresolved and the Actions Required above need to be addressed in ISMP Revision 2 and/or SRD Revision 1.

ISMP Section 3.3 Authorization Basis

Issue

The following material relates to SAP-86 through SAP-90, ISMP ER-2.

During the Standards Approval Review, the RU raised a number of issues related to contractor-initiated changes to the authorization basis. The issues were identified in Questions 81, 82, 169, and 177. The RU's position with regard to the appropriate resolution of issues associated with contractor-initiated changes to the authorization basis is described in RL/REG-97-13. In Section 3.2.2.3 of the ISMP-ER, the RU stated that the ISMP should be revised to conform to RL/REG-97-13.

BNFL responded to the issue described above by revising Section 3.3 of the ISMP. The following is a description of an evaluation of the changes. RL/REG-97-13 was used as criteria for the review. In consideration of the extensive changes made to Section 3.3, the reviewers also evaluated how Section 3.3 integrated with the other safety management processes described in the ISMP and the responsibilities for implementing them.

The introductory paragraph of Section 3.3 provides a brief description of the "authorization basis" which is incorrect and is inconsistent with RL/REG-97-13, DOE/RL-96-0006, and the BNFL proposed "authorization basis" definition in Section 12.

Action Required

Modify the second sentence introductory paragraph of Section 3.3 to be consistent with the definition established in DOE/RL-96-0006. The following suggested replacement sentence would be consistent with the established definition of "authorization basis": "The composite of information provided by BNFL in response to radiological, nuclear, and process safety requirements that is the basis on which the Regulatory Official grants approval to perform regulated activities."

Issue Resolution in May 19, 1998 Meeting

BNFL agreed to revise the introductory paragraph to be consistent with the established "authorization basis" definition.

ISMP Section 3.3.1, "Content of the Authorization Basis"

Issue

First paragraph states that authorization basis information "is submitted in connection with a request for Standards Approval, a request for Construction Authorization, or a request for Operations Authorization as described in DOE/RL-96-0003." While this is true, the authorization basis is not limited to this

information. Information submitted in connection with any of regulatory actions identified in DOE/RL-96-0003 may be included in the authorization basis (e.g., Deactivation Request or Initial Safety Evaluation). The discussion should be eliminated or clarified.

The listing of specific authorization basis “elements” in Sections 3.3.1.1 through 3.3.1.7 is incomplete. For example, the RU considers that information and commitments contained in the ISAR, HAR, RESW, and Employee Concerns Program are part of the authorization basis.

Action Required

Either list all documents (e.g., ISAR, HAR and ECP) that are part of the authorization basis or clarify Section 3.3.1.8 to recognize that documents other than those explicitly listed in Sections 3.3.1.1 through 3.3.1.7 are also part of the authorization basis.

Issue Resolution in May 19, 1998 Meeting

BNFL stated that the RESW would become part of the SRD Revision 1. BNFL noted that the ECP had not previously been considered by BNFL to be part of the authorization basis. The RU stated that the responsibility to determine the specific information contained in the authorization basis was that of the Contractor, as long as the spirit of the definition was met. The RU considers the ECP to be a part of the authorization basis. In lieu of a specific listing in ISMP Revision 2 that includes all authorization basis documents, the RU will consider that the documents listed above are included within the statement made in Section 3.3.1.8. Section 3.3.1.8 states that the authorization basis “includes other documentation, consisting primarily of correspondence relating to safety aspects of facility design, construction, operations, or deactivation that has been docketed.”

ISMP Section 3.3.1.5 Quality Assurance Program

Issue - Identifier ISMP ER-17 – Application of DOE/RW-0333P to HLW Activities

In response to Section 3.2.2.4 of RL/REG-98-03 and SA Package Question 73, BNFL committed to applying DOE/RW-0333P to all activities associated with HLW activities from design through production and acceptance.

The Commitment made in Question 73 was not fully met. ISMP Section 3.3.1.5 identifies DOE/RW-0333P and states “(applies to all HLW activities [i.e., design through production and acceptance]).” However, the sentence in Section 3.3.1.5 that states: “... provides topical requirements necessary to demonstrate compliance with....” is vague in terms of whether or not BNFL commits to comply with the four identified documents, including DOE/RW-0333P. Also, the fifth paragraph of ISMP Section 3.5 still limits DOE/RW-0333P compliance to “TWRS-P Project high-level waste production, canister storage, and transportation” (i.e., the same wording that was the focus of SA Package Question 73 to begin with).

Action Required

As an alternative to a specific listing in the ISMP, explicitly state in the ISMP Revision 2 that BNFL commits to comply with all four documents.

Issue Resolution in May 19, 1998 Meeting

BNFL agreed to accommodate the Actions Required for this item as stated.

ISMP Section 3.3.2, “Revisions to the Authorization Basis”**Issue**

ISMP Section 3.3.2, listed items 3 and 4 related to BNFL “safety evaluation” criteria is generally consistent with RU/REG-97-13, Section III.5.a, regarding criteria associated with changes to the authorization basis that can be implemented without prior RU approval. BNFL evaluation criteria deviate from RU/REG-97-13 positions III.5.a items 3 and 4 by adding the caveat “that could be interpreted as a reduction in safety.” BNFL has not provided a description or rationale for these deviations and the intent of these phrases is unclear. Generally, the RU is concerned with those changes that are potentially important-to-safety (as defined in DOE/RL-96-0006).

Action Required

Remove or clarify the phrase: “that could be interpreted as a reduction in safety.”

Issue Resolution in May 19, 1998 Meeting

BNFL noted that language associated with the phrase “that could be interpreted as a reduction in safety” was drawn from the NRC regulation. BNFL committed to clarifying the terminology associated with this phrase. The RU stated that this did not clarify BNFL’s intent with regard to this phrase.

In connection with this discussion, BNFL identified commitment management as example of a level of detail that could become administratively difficult to accommodate. BNFL stated that “programmatic” commitment tracking was appropriate, but that some flexibility was needed to allow for independent actions by BNFL. BNFL suggested that further refinement of the definition of “commitment” in DOE/RL-97-13 might accommodate this difficulty. The RU position on this matter is that further treatment of the term “commitment” in DOE/RL-97-13 would not likely result in any benefits. The RU went through several examples of what constituted a “commitment.”

Issue

ISMP Section 3.3.2 listed items 3 and 4 related to BNFL “safety evaluation” criteria use the term “Construction Authorization Basis.” This term is undefined. As described in RU/REG-97-13, there is one “Authorization Basis” which is initiated at the completion of the Standards Approval regulatory action and continues throughout the design, construction, operation, and decommissioning of a TWRS-P Contractor facility. “Construction Authorization Basis” should be changed to “Authorization Basis.”

Actions Required

Delete reference to a specialized “Construction Authorization Basis.”

Issue Resolution in May 19, 1998 Meeting

BNFL agreed to correct the reference to the “Construction Authorization Basis”

Issue

The administrative controls associated with authorization basis management, particularly the safety evaluation process described in Section 3.3.2, are not well integrated with the organization, responsibilities, and safety management processes described in the balance of the ISMP. The following are some specific examples (this identification is not comprehensive):

- Section 5.3, “Configuration Management,” appears to address configuration control of the physical facility (i.e., SSCs). Changes to design of SSCs are subject to the administrative controls described in Section 3.3.2. Items 1, 6, and 9 of Section 5.3 are related to but incomplete with regard to the safety evaluation described in Section 3.3.2 (e.g., the USQ determination described in Item 1 is one of several determinations included in the safety evaluation described in Section 3.3.2).
- Section 2.1, states: “Proposed changes to the authorization basis are subjected to the unreviewed safety question (USQ) evaluation process.” Changes to the authorization basis should conform to the process described in Section 3.3.2, which includes a USQ determination.
- Section 3.16 states: “internal safety oversight functions include corporate safety assessments, management assessments, independent assessments and audits, safety committees, incident investigations, and the USQ process.” As previously noted, making USQ determinations is a part of the process described in Section 3.3.2. Do “internal safety oversight functions” include only this one aspect of the evaluation process? It is not clear from the ISMP what organization(s) is (are) responsible for implementing the safety management process described in Section 3.3.2.
- Section 3.16.4 states:

“If a USQ is not identified, the TWRS-P Facility management can authorize temporary or permanent physical and administrative changes and conduct tests and experiments on the TWRS-P Facility without prior approval of the regulator”, and

“If the proposed change does not involve a USQ, the change can be implemented without the approval of the regulator. However, an activity will not be undertaken without RU review and approval if the initiation of the activity would itself involve an unreviewed safety question”

These statements are inconsistent with Section 3.3.2.

- Section 9.2 states: “Proposed physical or administrative changes to the facility are submitted in accordance with the unreviewed safety question (USQ) process.” This statement is inconsistent with Section 3.3.2.
- Section 5.6.2, “Updating of the Hazard Analysis Report,” states: “updates of the hazards analysis are governed by the USQ process (described in ISMP Section 3.16.4, “Unreviewed Safety Questions,” and to be described in ISAR Section 3.1, “Configuration Management”).” The Hazard Analysis Report (HAR) should be considered a part of the authorization basis (see ISMP Section 3.3.1, Comment 2 above) and the process for changing the HAR should be implement the applicable portions of Section 3.3.2.

The appropriate portions of the ISMP addressing the management of Changes (as defined in Section 12) should be revised to address implementation of Section 3.3.2. Also, the ISMP should clearly identify the responsibilities associated with implementing the safety management process described in Section 3.3.2.

Actions Required

Make the rest of the ISMP consistent with the administrative controls (particularly the safety evaluation process) described in Section 3.3.2 as noted above.

Issue Resolution in May 19, 1998 Meeting

BNFL agreed to make changes as necessary to make the ISMP consistent.

Issue - RU Review of Substantive Changes to the QAPIP (SA Package Question 77)

BNFL committed to revise the ISMP to state that changes to the QAPIP that affect commitments specified in a previously approved QAPIP shall be submitted to the RU for review and approval 30 days prior to the implementation of the subject changes.

The Commitment associated with this question was not met. Instead of revising the ISMP to reflect this change, Section 3.3.2 states: "As allowed by 10 CFR 830.120(b)(3), BNFL Inc. may, at any time, make changes to the approved QAPIP so long as the QAPIP, as changed, will continue to satisfy the requirements of 10 CFR 830.120" (emphasis added). See also Table 1-2.

The wording of the second paragraph of Section 3.3.2 was revised in a manner that significantly changes the agreements reached to date between the RU and BNFL regarding the submittal of QAPIP changes to the RU for review and approval. Specifically: (a) Section 1.9.2 of the February 7, 1997 BNFL QAPIP states that revisions to the QAPIP and Implementation Plan shall be submitted to the RU for review and approval to confirm that revisions do not alter the effectiveness of the QAPIP; (b) in response to SA Package Question 77, BNFL stated that changes to the QAPIP that affect commitments specified in a previously approved QAPIP shall be submitted to the RU for review and approval 30 days prior to the implementation of the subject changes; and (c) Section 1.5 of Revision 4 of the QAPIP states: "Changes to the QAP and Implementation Plan that affect commitments specified in a previously approved QAP and Implementation Plan shall be submitted to the RU for review and approval 30 days before the implementation of subject changes."

Actions Required

Revise the wording of the second paragraph of Section 3.3.2 to reflect the agreement previously reached between the RU and BNFL regarding the submittal of QAPIP changes to the RU for review and approval.

Define the role of the TWRS-P Project QA Manager with respect to the extent to which he is responsible for reviewing and approving documents such as the ISMP prior to submittal to the RU.

Describe the extent to which the TWRS-P Project QA Manager reviewed and approved Revision 2 of the ISMP.

Describe the corrective action that BNFL will take in the future to ensure that the configuration of the authorization basis is acceptably controlled.

Issue Resolution in May 19, 1998 Meeting

The RU stated that the approved QAPIP commitments need to be reflected in ISMP Revision 2. BNFL emphasized that the QA Manager will review ISMP revisions in the future to ensure configuration control.

ISMP Section 3.8 Criticality

Issue

ISMP Section 3.8 discusses Nuclear Criticality but does not mention the sampling of feed material (SAP-25).

The ISMP Revision 2 states in Section 3.8 (Criticality Safety) that:

“The results of this analysis are provided in ISAR Chapter 6.0, “Nuclear Criticality Safety.” This analysis confirms that there is no need for specific controls for prevention of criticality.”

However, the Conclusion of Section 3.9.5 (Criticality Safety) of the ISAR Evaluation Report states:

“The reviewers find that the analysis in the ISAR is inconclusive.... The following open issues will be reviewed in Part B:

- The ISAR did not present the fissile material content of all vessels identified in the HAR as criticality concerns.
- The ISAR has not made a clear case supporting the claim that waste is homogeneous during normal operations
- Neither the ISAR nor the SA Package submittals discuss the fissile material inventory and concentrations in the TRU storage tank for the LAW-only option
- Chapter 6 of the ISAR and TWRS/CR 1 give no detailed discussion of fissile material concentration mechanisms due to off-normal or accident condition in the process.
- No case has been made that the process stream is comparable to a pure Pu and water system for the purpose of criticality safety.”

Thus, ISMP Revision 2 does not reflect the RU’s position on the status of criticality concerns in the TWRS-P facility. Nonetheless, the additions to Revision 2 describing the TWRS-P Facility criticality program accurately reflect the disposition of RU questions related to Criticality Safety. Therefore, only the reference to the acceptability of the ISAR analysis needs to be changed.

Action Required

Modify the sentence in the ISMP Revision 2 that states that ISAR analysis “confirms” that there is no need for specific controls.

Issue Resolution in May 19, 1998 Meeting

The ISAR open issues reflect inadequate analysis of the criticality issue, but the ISMP program for criticality control is adequate. BNFL agreed to revise the sentence mentioned under “Action Required.”

ISMP Section 3.9.1.1 Radioactive Material Confinement**Issue**

This section contains new material that has not been reviewed. The subjects include radiography and pre-construction radiological surveillance.

The Section contains statements that are not acceptable to the RU and may potentially violate 10 CFR 835.101 program requirements. The new material is a direct quote of BNFL’s Question # 86. However, a direct quote to a specific question regarding RP measures is not acceptable as a program description.

Action Required

This section needs to either be submitted under the “change control” process, or submitted in the next full revision to the ISMP (i.e. Construction Authorization Request).

Issue Resolution in May 19, 1998 Meeting

The RU offers two options to BNFL:

- BNFL may elect to leave the material in the ISMP, and anticipate a full review and evaluation by the RU, including assembly of reviewers, a question/response period and requests for additional information. The material as submitted does not appear to be adequate.
 - BNFL may withdraw the material and resubmit it at the CAR, at which time the RU will include the material in its detailed review.
-

ISMP Section 3.9.1.2 Radiation Shielding and Access Control Features**Issue - (SAP Question # 175)**

ISMP Revision 0 states that “Minimum shielding requirements are then established as necessary to ensure that the exposure rates in the radiation zones are maintained under all anticipated operating conditions.”

This statement appears to be contrary to ALARA that says that radiation shielding is employed such that exposures are kept as low as reasonably achievable.

The response to this question in ISMP Revision 2 is unacceptable – Although BNFL acceptably resolved the question with their response, the ISMP Revision 2, Section 3.9.1.2 does not reflect the ALARA commitments made in the text of the response to Q # 175

Action Required

Refer to ALARA

Issue Resolution in May 19, 1998 Meeting

The statement referred to above may remain in the ISMP if reference to ALARA is made.

ISMP Section 3.10 Emergency Preparedness

Issue

The present document lists several regulations that require an emergency preparedness plan but fails to mention that the OSHA PSM rule (29 CFR 1910.119) also requires a plan and this should be listed in the discussion.

Action Required

Add reference to 29 CFR 1910.119 to the text of this section

Issue Resolution in May 19, 1998 Meeting

BNFL agreed to accommodate the Action Required.

ISMP Section 3.12 Human Factors

Issue

There is a typographical error related to SAP-217 in Section 3.12. The second Paragraph, third sentence should read: "...where human-machine interfaces are contributing..."

Other revisions to this section are satisfactory.

Action Required

Fix the typographical error.

Issue Resolution in May 19, 1998 Meeting

No discussion.

ISMP Section 3.13 RAMI

Issue

This area had no ISMP ER commitments or conditions stipulated in the ER. However, the positive evaluation we wrote listed an example of BNFL intention via an example, which has been subsequently deleted in the ISMP Revision 2. The original RU SER read "BNFL's intention in applying RAMI is demonstrated by an example relating to the cooling water supply system for the cesium concentrate storage vessel." This example is deleted in Revision 2.

Action Required

Reinsert the example.

Issue Resolution in May 19, 1998 Meeting

BNFL noted that the example was removed because ISA analysis showed that the example was incorrect. The RU stated that it is acceptable to retain the example, describing it as a hypothetical case. The RU stated that BNFL might delete the example, or provide an alternative, if that is preferred.

ISMP Section 3.16.1, Safety Committees**Issues**

There are extensive revisions to Section 3.16.1 that do not appear to be specifically related to issues identified in RU SA Package review questions or the ISMP-ER. No discussion was provided in the ISMP Revision 2 submittal regarding these changes. A rationale should be provided for the changes to Section 3.16.1.

Related to documents reviewed by Project Safety Committee, Items 4 and 6 identify changes to TSRs, changes to portions of the SRD, and certain USQ determinations that are a subset of circumstances that result in the submittal of an authorization basis amendment request as described in Section 3.3.2. All authorization basis amendment requests should be reviewed by the Project Safety Committee and dispositioned by the General Manager.

BNFL stated during the May 19 meeting that while Revision 0 was reviewed by the ISRT, ISMP Revision 2 was not reviewed by the newly formed Project Safety Committee due to the fact that the committee did not exist while Revision 2 was being prepared. In addition, the Project QA Manager did not review the document.

Action Required

All changes to ISMP Revision 0 that do not relate specifically to SA Package/ISA Review questions or to the ISMP ER will be removed. A new revision will be generated showing both deletions and additions with respect to Revision 0. Each change will be specifically related to either the response to a question or to an Evaluation Report action. The new revision will be reviewed by the Project QA Manager prior to submittal to the RU.

Issue Resolution in May 19, 1998 Meeting

BNFL agreed to accommodate the Action Required for this item as stated. The RU will review and comment on the draft revisions prior to BNFL's formal re-submittal of the next revision.

BNFL explained that the additional safety committee discussion was not new, but was taken from the ISAR and that this was addressed in the three-page handout provided by BNFL and mentioned in the beginning of the evaluation report. BNFL further explained that ISMP Section 3.16.1 and Chapter 11 were revised to reflect later information provided in the ISAR as the evaluation report for the ISAR contains criticism of BNFL failing in opportunities to make the two documents consistent. This is also one of the items mentioned in the ISMP Revision 2 evaluation report of changes that should be made (page 6 "... or corrections or inconsistencies with the Initial Safety Assessment").

ISMP Section 3.16.4, Unreviewed Safety Questions

Issue

The comment below is the same as for Section 3.3.2 regarding changes to authorization basis:

Section 3.16.4 states:

“If a USQ is not identified, the TWRS-P Facility management can authorize temporary or permanent physical and administrative changes and conduct tests and experiments on the TWRS-P Facility without prior approval of the regulator”, and

“If the proposed change does not involve a USQ, the change can be implemented without the approval of the regulator. However, an activity will not be undertaken without RU review and approval if the initiation of the activity would itself involve an unreviewed safety question”

These statements are inconsistent with Section 3.3.2

Action Required

Revise the statements related to USQs in this section to make them consistent with Section 3.3.2.

Issue Resolution in May 19, 1998 Meeting

BNFL agreed to the Action Required.

ISMP SECTION 5 – PROCESS SAFETY MANAGEMENT

Issue

After adding a paragraph concerning 40 CFR 68 to Sect. 5.0, BNFL has revised the list of acronyms to show that RMP means “Risk Management Plan”, but continues to use the same acronym for “Risk Management Program” in the preceding paragraph. “Risk Management Program” has a distinct meaning from “Risk Management Plan” in 40 CFR 68 parlance.

Action Required

Adopt a single nomenclature.

Issue Resolution in May 19, 1998 Meeting

BNFL agreed to adhere to the convention the RMP means Risk Management Program.

ISMP Section 5.2 Control of Subcontractors**Issue**

The sixth paragraph of Section 5.2 (bottom of page 5-4) states in part: “The TWRS-P Project requires that subcontractors and suppliers providing services and items Important-to-Safety develop a Quality Assurance Program (QAP) that is in compliance with the requirements of 10 CFR 830.120, “Quality Assurance Requirements,” or other consensus QA standards for their scope of work” (emphasis added). As pointed out during the review of the March 27, 1997 QAPIP, the term “or other consensus standards” is inappropriate since 10 CFR 830.120 is not a consensus standard, per se.

Action Required:

Revise the wording of the sixth paragraph of Section 5.2 (bottom of page 5-4) to be consistent with that used in Revision 4 of the QAPIP.

Issue Resolution in May 19, 1998 Meeting

BNFL agreed to revise the wording as indicated.

ISMP Section 5.6.4 Startup Review**Issue**

This section mentions ISAR Section 3.10, “Initial Testing and Startup Safety Review.” However, this section of the ISAR is actually titled “Testing Program and Preoperational Safety Review”.

Action Required

Correct the typographical error.

Issue Resolution in May 19, 1998 Meeting

BNFL agreed to correct the text.

ISMP Section 5.6.5 Mechanical Integrity**Issue**

This section states that: “The TWRS-P Project QAP includes procedures to ensure that equipment, as fabricated, is suitable for the process application for which it will be used.” However, the QAPIP includes the *requirements for procedures* and an implementation plan for those procedures, not the actual procedures themselves. (This discrepancy was not discovered during the RU’s evaluation of the ISMP Revision. 0., but is reported now.)

Action Required

Correct the ISMP to refer to requirements rather than the procedures, in reference to the QAPIP.

Issue Resolution in May 19, 1998 Meeting

BNFL agreed to correct the ISMP as noted under “Action Required.”

Section 5.6.8 Emergency Action Plan

Issue

ISMP Revision 2 references 29 CFR 1910.38, 40 CFR 68, 40 CFR 355, DOE/RL-94-02, and DOE/RL-96-0006. However, the ISAR, Section 9.0 “Emergency Management” refers to WAC 173-303-350 *Dangerous Waste Regulations* in addition to the other standards as requirements.

Action Required

BNFL should add this WAC to the list of subordinate standards in the SRD, and cite this WAC in Section 5.6.8 of the ISMP.

Issue Resolution in May 19, 1998 Meeting

BNFL agreed to remove reference to the WAC in this Section and to add a reference to the WAC in the third paragraph of Section 3.10, and to correct the title of WAC-173-303-350.

ISMP SECTION 7 – REGULATORY INTERFACES

ISMP Section 7.2 Occupational Safety and Health

Issue

Section 7.2 lists the expected SIC codes for the TWRS-P facility during construction and operation. However, on January 1, 1997, the United States adopted a new system of codes in conjunction with Mexico and Canada known as the North American Industry Classification System (NAICS). The NAICS uses 5 or 6 digit numerical codes to identify industry classifications. These codes can be found at the U.S. Census Bureau’s website, www.census.gov/epcd/www/naics.html.

Action Required

Refer to the NAICS in ISMP Revision 2.

Issue Resolution in May 19, 1998 Meeting

BNFL agreed to refer to the new classification system.

ISMP SECTION 9 – SCHEDULING OF SAFETY-RELATED ACTIVITIES

ISMP Section 9.1 Scheduling of Safety-Related Activities

Issue

The Initial ISMP stated that a detailed schedule would be provided in the ISA. A schedule was not provided in the ISA. The commitment (SAP-108, ISMP ER-4) was revised to indicate in Section 9.1 of the ISMP that the schedule information is located in the Integrated Master Plan. The IMP is not a regulatory document and does not include dates. The information needed by the RU and BNFL to mutually track key safety related activities would include dates. For program planning purposes, it would be desirable to include this information in the ISMP Revision 2.

Action Required

Provide the RU with a schedule, including dates, for key safety-related activities.

Issue Resolution in May 19, 1998 Meeting

BNFL noted that due to protracted contract negotiations, a schedule is not yet available. A schedule, including dates, will be provided to the RU as soon as it is available.

ISMP Section 9.2 Scheduling of Events for Regulatory Submittals**Issue**

Section 9.2 of the ISMP was revised to amplify what exceptions BNFL proposed for regulatory submittals, including:

- Design data and design drawing (available on site for review)
- Experience and technical qualification (maintained in project file)
- Procedures for construction and pre-op testing (available on site for review)

In addition, item 6 of Section 4.3.2 of DOE/RL-96-0003 (Assessment of Compliance to SRD and ISMP) was omitted (SAP-86).

These exceptions were proposed for both the Construction Authorization and the Operating Authorization (SAP-87). The proposals are tantamount to revision of the Contractually binding J-Documents and are not approved by the RU.

An additional paragraph was added to discuss submittals that will be made as part of the USQD process and FSAR annual update. These additions were found to be adequate. However, Table 9-4 includes an entry that states "Implement a monitoring, evaluation, and reporting program in compliance with the operating license/authorization." The term "license" should be deleted.

Action Required

Revise ISMP Revision 2 to be consistent with the existing J-documents until those documents are formally changed.

Issue Resolution in May 19, 1998 Meeting

BNFL agreed to revert back to the existing J-document requirements, but noted that item 6 was not omitted from the CAR submittal information, but only from what was being proposed as part of the PSAR. The RU agreed that this interpretation was correct.

ISMP SECTION 11 – ORGANIZATIONAL ROLES, RESPONSIBILITIES AND AUTHORITIES

ISMP Revision 2 Section 11 is generally acceptable with exceptions noted below, since it included considerable realignment of responsibilities among the various BNFL organizations, while retaining responsibilities identified in Revision 0. The organizations as listed in Revision 2 appear appropriate for the assigned tasks.

ISMP Sections 11.1, Design and Construction Phase and 11.2, Operations Phase

Issue - Stop Work Authority

In response to RU SA Package Question 139, BNFL committed to clarifying the ISMP regarding the stop work authority of the Project QA Manager. This commitment was not fully met. ISMP Sections 11.1 and 11.2 were revised to state that the Project QA Manager has the authority to stop project work. However, the wording of Sections 11.1 and 11.2 regarding this subject appear to place what could become unreasonable limitations on the use of the Project QA Manager's use of his stop work authority.

Action Required

Remove wording from the ISMP that restricts the stop-work authority of the QA manager.

Issue Resolution in May 19, 1998 Meeting

BNFL agreed to accommodate the "Action Required," above.

Issue - Figure 11-1 Design and Construction Organization

Figure 11-1 within the ISMP is not consistent with Figure 1-3 within Revision 4 of the QAPIP (e.g., titles of most of the positions reporting into the Project Manager are different; BNFL Inc. Corporate QA Manager is not reflected on Figure 11-1 of the ISMP; no dotted line reporting relationship shown from the BNFL Inc. ES&H and QA VP to the General Manager).

Action Required

Revise Figure 11-1 within the ISMP to be consistent with Figure 1-3 within Revision 4 of the QAPIP.

Issue Resolution in May 19, 1998 Meeting

BNFL proposed to expand the Figure, as well as to make it consistent with the QAPIP.

ISMP SECTION 12 – DEFINITIONS

Issue

ISMP Revision 2 is inconsistent in its use of terms defined in the Contract. For example, in Section 1.3.10, the ISMP states:

“In this system, SSCs are designated as Important-to-Safety in accordance with the definition of this term as provided in *Top-Level Radiological, Nuclear, and Process Safety Standards and Principles for TWRS Privatization Contractors*, (DOE-RL 1996b).”

However, Section 12 provides a definition of Important to Safety that is different than that of DOE/RL-96-0006. QAPIP Revision 4 now uses a definition identical to that in DOE/RL-96-0006. In addition to the definition of important to safety, several other definitions key to the Contract were altered in varying degrees in Section 12, including those of:

- Common Cause Failure
- Highly Hazardous Chemicals
- Initial Safety Evaluation Report
- Process Safety Management
- Public
- Safety Limits
- Technical Safety Requirements
- Unreviewed Safety Question (USQ)
- Worker

In addition, new definitions have been added. The importance of the details in each definition is illustrated by an example. The ISMP Revision 2 definition of “facility worker” was added. The definition introduced a new term “Contractor-controlled area” which is not defined. The DOE/RL-96-0006 definition of “worker” is similar in that it associates the worker with work within the “controlled area.” However, “controlled area” is very specifically defined in DOE/RL-96-0006. Thus, it appears that BNFL’s term “facility worker” is intended to equate to the Contract definition of “worker.” Comparing the two definitions:

- Facility worker (BNFL) – An individual within the Contractor-controlled area performing work for or in conjunction with the TWRS-P Facility
- Worker (Contract) – Worker means an individual within the controlled area of the facility performing work for or in conjunction with the Contractor **or utilizing Contractor facilities** [emphasis added].

Note that Controlled Area is equivalent to the fenced enclosure but “Contractor-controlled” may not be the fenced enclosure.

It is readily seen that the two definitions are not the same. Therefore, the addition of such new definitions requires that the basis for changing a contract-defined term must accompany a proposed change and must be taken through the proper process for contract changes.

In addition, the RU has identified inconsistencies between recommended changes to terminology in the J-Documents (i.e., TSRs and USQs) and those provided in the ISMP Revision 2. While the RU has not yet given disposition to the recommendations for changes to the J-Documents, the fact that there are inconsistencies further confuses the RU's understanding of the underlying issues that drove BNFL to decide that terminology needed to be changed. In general, modifications to definitions of safety terms in the Contract will not be accepted by the RU without careful deliberation and dialogue with BNFL, and without a clear understanding of why BNFL believes the terminology needs to be changed.

Action Required

Revise ISMP Revision 2 definitions to be consistent with the Contract.

Issue Resolution in May 19, 1998 Meeting

BNFL agreed to revert to the original definitions in the J-documents.
